陳 春 安 教 授,清華榮譽講座教授 教育部終身榮譽國家講座

SHOW-AN CHEN, PROFESSOR Tsing Hua Distinguished Chair Professor Lifetime-Honored National Chair Professor

● 國立成功大學 學士

學士,民國五十一年

• 美國羅徹斯特大學

碩士,民國五十六年

• 美國華盛頓大學

博士,民國五十八年

- B.S. National Cheng Kung University, ROC, 1962
- M.S. University of Rochester, USA, 1967
- Ph.D. Washington University, USA, 1969



主要研究領域

共軛導電高分子之分子設計/合成 及其相關元件之製作。

正在進行的題目有:

- 電致發光高分子之研究及其在 發光顯示器上之應用。
- 高分子太陽能電池之研究。
- 高分子電晶體之研究及其與平面顯示器之整合。
- 高分子記憶體之研究。

Main Research Interests

Design/synthesis of conjugated conductive polymers and related devices

On-going research topics are:

- Molecular design, synthesis, and emission mechanism of electroluminescent polymers and their application in light emitting display.
- · Polymer solar cell.
- Polymer field effect transistor and its integration with flat panel display.
- · Polymer memory device.

代表作 (Selected Publications)

- M.-K. Hung, K.-W. Tsai, S. Sharma, J.-Y Wu, <u>Show-An Chen</u>*, "Acridan Grafted Poly(biphenyl germanium) with High Triplet Energy, Low Polarizability and External Heavy-Atom Effect for Highly Efficient Sky-Blue TADF Electroluminescence", *Angew. Chem. Int. Ed.*, 58,11317-11323 (2019).
- K.-W. Tsai, M.-K. Hung, **Show-An Chen***, "Solution Processed Thermally Activated Delayed Fluorescent OLED with High EQE as 31% Using High Triplet Energy Crosslinkable Hole Transport Materials", *Adv. Funct. Mater.*, 1901025 (2019)
- S.-H. Liao, H.-J. Jhuo, Y.-S. Cheng, <u>Show-An Chen</u>*, "Fullerene Derivatives-Doped Zinc Oxide Nano-Film as Cathode of Inverted Polymer Solar Cells with Low Band Gap Polymer (PTB7-Th) for High performance", *Advanced Materials*, 25, 4766–4771 (2013)
- S.-H. Liao, Y.-L. Li, T.-H. Jen, Y.-S. Cheng, and Show-An Chen*, "Multiple Functionalities of Polyfluorene Grafted with Metal Ion-Intercalated Crown Ether as an Electron Transport Layer for Bulk-Heterojunction Polymer Solar Cells: Optical Interference, Hole Blocking, Interfacial Dipole, and Electron Conduction", *Journal of the American Chemical Society*, 134, 14271–14274 (2012).
- H,-H. Lu, Y.-S. Ma, N.-J. Yang, G.-H. Lin, and <u>Show-An Chen</u>*, "Creating a Pseudo-Metallic State of Potassium Ion by Intercalating it into 18-Crown-6 Grafted on Polyfluorene as Electron Injection Layer for High Performance of Polymer Light Emitting Diode with Oxygen- and Moisture-Stable Aluminum as Cathode", *Journal of the American Chemical Society*, 133, 9634–9637 (2011).

